IN THE UNITED STATES BANKRUPTCY COURT FOR THE EASTERN DISTRICT OF TENNESSEE

In re

Case No. 09-35581

FALLON LUMINOUS PRODUCTS CORPORATION
aka FALLON CUSTOMER SERVICE
aka GLASS BENDING CORPORATION
aka ADVERNEON aka E-GLAS
aka ELECTRIGLAS aka ARTNEON
aka DECONEON aka LOGONEON
aka SPELLNEON aka EMBEDDED
aka BRINGING NEON TO LIFE

Debtor

iLIGHT TECHNOLOGIES, INC.

Plaintiff

v. Adv. No. 10-3050

FALLON LUMINOUS PRODUCTS CORPORATION

Defendant

M E M O R A N D U M

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RICHARD STAIR, JR.
UNITED STATES BANKRUPTCY JUDGE

This adversary proceeding originates from the Order entered by the United States District Court for the Middle District of Tennessee on June 10, 2010, transferring this action to the United States Bankruptcy Court for the Eastern District of Tennessee. Also before the court is the Objection by Richard F. Ray, Trustee, to Claim No. 46 of iLight Technologies, Inc. (Objection to iLight Claim) filed in the Defendant's bankruptcy case on July 1, 2010, by the Chapter 11 Trustee, Richard F. Ray, objecting to the allowance of the unsecured claim filed by the Plaintiff on May 28, 2010, in the amount of $5,072,180.16, as amended on June 8, 2010. The adversary proceeding and Objection to iLight Claim were consolidated for a bench trial pursuant to the pretrial Order entered by the court on November 5, 2010, as amended on December 20 and 22, 2010.

The trial of these consolidated matters was held on January 13 and 14, 2011. The record before the court consists of the Stipulation of Undisputed Facts filed by the parties on January 4, 2011, thirty-three exhibits introduced into evidence, the testimony of Mark Cleaver, a founder of the Plaintiff, and John Perrachon, Chief Executive Officer of the Debtor, and the testimony of two expert witnesses, Dr. Victor David Roberts and Kevin Hathaway.

This is a core proceeding. 28 U.S.C. § 157(b)(2)(A), (B), and (O) (2006). To the extent the issues before the court may be deemed non-core but otherwise related to the Defendant's bankruptcy case, the parties have expressly consented to the entry of appropriate orders and judgments by the bankruptcy judge pursuant to 28 U.S.C. § 157(c)(2) (2006).

I

The following facts detailing the procedural history of the present action are either stipulated by the parties or are of record in this adversary proceeding and the Defendant's underlying bankruptcy case. On March 24, 2006, the Plaintiff filed a Complaint commencing civil action number 2:06-cv-00025 against the Defendant in the United States District Court for the Middle District of Tennessee (District Court for the Middle District) for infringement of claims 8 and 25 of U.S. Patent No. 6,592,238; claims 1 and 8 of U.S. Patent No. 6,953,262; and claims 1, 5, and 8 of U.S. Patent No. 7,188,970. An Amended Complaint was filed by the Plaintiff on March 19, 2007. Following a lengthy jury trial in April 2009, all asserted claims were found both not invalid and willfully infringed, and the District Court for the Middle District issued an Amended Permanent Injunction Order against the Defendant on July 2, 2009, and entered a Final Judgment on October 1, 2009, in the amount of $5,062,963.54, inclusive of compensatory damages, prejudgment interest, increased damages, attorneys' fees, and additional costs. The Defendant appealed the judgment to the United States Court of Appeals for the Federal Circuit (Federal Circuit), which, on April 20, 2010, vacated the judgment of infringement in favor of the Plaintiff and the permanent injunction entered against the Defendant and remanded the case back to the District Court for the Middle District for further proceedings consistent with its opinion. *See iLight Techs., Inc. v. Fallon Luminous Prods. Corp*., 375 F. App'x 21, *clarified by* 380 F. App'x 978 (Fed. Cir. 2010). Specifically, the Federal Circuit held:

> [T]he district court erred in its construction of the claim terms "rod" and "rod-like." The jury should have been instructed that the claimed invention did not include "hollow" structure for the waveguide and that, in order to infringe, structure in the accused Fallon products corresponding to the waveguide could not be "hollow." We

> think that Fallon's proposed claim construction, augmented by appropriate instruction to the jury with respect to the "solid" requirement, would have accomplished this.

iLight Techs., Inc. v. Fallon Luminous Prods. Corp., 375 F. App'x at 27.

In the interim, on October 8, 2009, the Plaintiff and three other petitioning creditors filed an Involuntary Petition under Chapter 7 against the Defendant in this court. The Involuntary Petition was contested and the court, after a trial, entered an order for relief against the Defendant under Chapter 7 on January 20, 2010. The case was subsequently converted to Chapter 11 on February 5, 2010, and Richard F. Ray was appointed Chapter 11 Trustee on February 8, 2010. He continues to act in that capacity and, pursuant to his authority under 11 U.S.C. § 1106(a) (2006), defended this adversary proceeding and prosecuted the Objection to iLight Claim. The Defendant was permitted to intervene as an objecting party in the Objection to iLight Claim pursuant to the Order Granting Debtor's Motion to Intervene entered on November 29, 2010.

Because the Defendant was in bankruptcy, the District Court for the Middle District transferred the remanded civil action number 2:06-cv-00025 to the bankruptcy court on June 10, 2010. On August 26, 2010, the Plaintiff filed a motion seeking the withdrawal of the reference and transfer of venue, asking the United States District Court for the Eastern District of Tennessee to withdraw the reference to the Bankruptcy Court and transfer the adversary proceeding and Objection to iLight Claim back to the District Court for the Middle District. This motion was denied in a Memorandum and Order filed on October 21, 2010.

Consistent with the directives of the Federal Circuit in its Order of remand, and as agreed upon by the parties and set forth in the pretrial Order entered on November 5, 2010, the sole issue this court is called upon to resolve is:

> Whether the waveguides in the disputed Fallon Luminous Products Corporation products have a "hollow" or "solid" structure. If "hollow," the products do not infringe iLight Technologies, Inc.'s patents.

The issue of damages was reserved pending the determination of whether the Defendant has infringed the Plaintiff's patents.

II

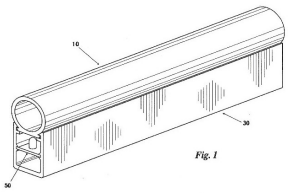
As stated above, the sole issue before the court is whether the structure of the waveguides used by the Defendant in its accused products are "hollow" or "solid."[1] If "hollow," they do not infringe the Plaintiff's patents. In making its determination, the court does not compare the Defendant's accused products against the products produced by the Plaintiff but instead compares the Defendant's accused products against the Plaintiff's Patent No. 6,592,238, Patent No. 6,953,262, and Patent No. 7,188,970. *See AquaTex Indus., Inc. v. Techniche Solutions*, 479 F.3d 1320, 1327-28 (Fed. Cir. 2007) ("Infringement, either literally or under the doctrine of equivalents, does not arise by comparing the accused product . . . with a commercialized embodiment of the patentee . . . [and] is not determined . . . by comparison between commercial products sold by the parties.") (citations and quotation marks omitted).

[1] The accused products are specifically identified in paragraph 1 in the Amended Permanent Injunction Order issued by the District Court for the Middle District on July 2, 2009. STIP. OF UNDISP. FACTS ¶ 8, EX. A. Due to the injunctive nature of that order, the District Court identifies these products as "Infringed Products."

With respect to the technical issues and arguments raised on appeal, the court relies upon the following excerpt from the opinion of the Federal Circuit:

> On appeal, Fallon challenges the district court's construction of the claim limitations "rod" and "rod-like" . . . [.] Fallon argues that, under the correct construction of any of these limitations, it is entitled to a judgment of non-infringement as a matter of law, or at least a new trial on infringement. . . . .
>
> . . . . We turn, therefore, to the issue of the construction of the claim limitations "rod" and "rod-like."
>
> The term "rod" appears in claims 1 and 8 of the '262 patent and claim 5 of the '970 patent. The term "rod-like" appears in claim 8 of the '238 patent and claims 1 and 8 of the '970 patent. "Rod" and "rod-like" are used with reference to the claimed invention's waveguide, designated 12 in Figure 1 of the specification. Fallon urged the district court to construe the limitations as follows: "[a] structure that is both solid and shaped like a rod, as opposed to a hollow tube or hollow arch." For its part, iLight urged the following construction: "[a] structure that is substantially larger in one of its three dimensions than in the two other orthogonal dimensions, and that has a substantially constant cross-section in the direction of the longest of the three dimensions. A hollow tube would not constitute a rod." Prior to trial, the district court instructed the jury as follows: "The term 'rod' means a slender strip or slender bar resembling in shape a wand. The term 'rod-like' means a slender bar like a rod."
>
> Fallon argues that the district court erred in its claim construction because the construction failed to reflect the patent applicants' "unambiguous disavowal [during prosecution] of hollow, thin walled diffusers and [the] express limitation [of the invention] to solid rods to distinguish prior art." As noted, Fallon contends that, under a correct construction of "rod" and "rod-like," its devices do not infringe.
>
> The prior art which Fallon asserts gave rise to a disclaimer of "hollow thin walled diffusers" is U.S. Patent No. 6,361,186 to Slayden ("Slayden"). Slayden relates to simulated neon lighting having a series of LEDs aligned inside an opaque tubular housing hidden below a translucent diffuser of circular cross-section. The light emitted by the LEDs passes from the housing chamber into the circular diffuser. This results in the refraction and reflection of light by the diffuser producing a neon-like glow with substantially homogeneous light intensity across the exposed surface of the diffuser. Figures 1, 2 and 4 from the Slayden specification are reproduced below.[2]

[2] These images may be viewed with greater clarity upon reviewing Trial Exhibit 11f and Trial Exhibit 11h.



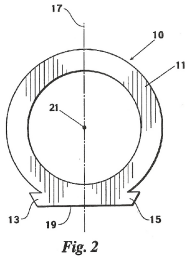


Fig. 2

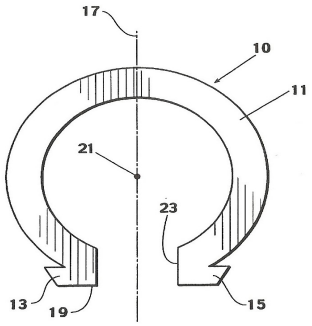


Fig. 4

Figure 1 depicts the light with its two major body components: the elongated translucent diffuser (10) on top and the elongated opaque tubular housing (30) containing the LED circuit board below. Figures 2 and 4 depict the first component, the diffuser, from an end elevation view. Figure 4 shows an alternate slotted embodiment of the diffuser.

> In an initial office action, the Examiner rejected over Slayden claims of the application corresponding to claims asserted by iLight against Fallon. Responding to the rejection over Slayden, the applicants stated:
>
> > [Slayden] describes the use of a hollow, thin-walled, translucent diffuser that provides *no* preferential scattering of light, a critical feature of the illumination device described and claimed in the present application . . . [T]o

> achieve the desired light intensity and uniformity, the rod must preferentially direct light along its length while also urging the light out of a lateral surface[.] This requires an essentially solid rod with optical waveguide and light scattering characteristics. Neither cited prior art reference teaches or suggests the use of an essentially solid rod, nor does either reference teach or suggest the use of a rod with optical waveguide and light scattering characteristics.
>
> iLight does not dispute that it explicitly disclaimed a "hollow tube" structure during prosecution. Neither does it dispute that such disclaimer includes both an elongated circular tube and a slotted tube embodiment, as depicted above in Figures 2 and 4 of Slayden. iLight argues, however, that the disclaimer does not cover Fallon's structure, which iLight refers to as a "solid arch" structure. iLight argues that Fallon's lights were in no way disclaimed because they do not have the tubular shape that was critical to Slayden, nor the functional benefits of the Slayden structures. At oral argument, counsel for iLight stated that the disclaimer of "hollow" does not extend to Fallon's "solid arch" structure because the latter lacks the ability to achieve multiple internal refractions inside a hollow structure.

iLight Techs., Inc. v. Fallon Luminous Prods. Corp., 375 F. App'x at 25-27 (internal citations omitted).

At trial, Mr. Cleaver, Chairman of the Board of Directors and one of the Plaintiff's founders, outlined the details of his inventions, illumination devices using light emitting diodes (LEDs) to give the appearance of neon and provide good lighting but which are also cool to the touch, energy efficient, and durable. To better illustrate, he exhibited for the court an LED color sample kit along with examples of the illumination devices being used in three finished products: an Open sign, a Budweiser bow-tie sign, and a Camel Store sign. TRIAL EX. 4 - TRIAL EX. 7. The Plaintiff's illumination devices are protected by patents granted by the United States Patent and Trademark Office, the first of which – No. 6,592,238 – was issued on July 15, 2003, and is defined in the Abstract as follows:

> An illumination device for simulating neon lighting comprising a plurality of space point light sources positioned adjacent a lateral light receiving surface of a substantially rod-like waveguide. The waveguide is made of a material that preferentially scatters light entering the light receiving surface such that the light intensity pattern exiting a lateral light emitting surface of the waveguide has a substantially uniform light intensity pattern.

TRIAL EX. 1. Elaborating further, the Detailed Description of the Invention states, in material part as to the function and structure of the waveguide:

> To provide the desired result, i.e., an illumination device that is an effective simulator of neon lighting, it is important that the proper materials be selected for the component parts and those parts [are] appropriately and geometrically positioned so that the resulting illumination device has an essentially uniform light intensity distribution pattern over the entire surface with the maximum obtainable brightness. . . . .
>
> The ultimate objective of the illumination device of the present invention is to simulate an illuminated neon tube that glows with the proper intensity and uniformity over its length. Thus, applicants have determined that it is important that the leaky waveguide (used to simulate the neon tube) be comprised of a profiled rod of material having sufficient diffusivity that collectively with the other components of the invention visually eliminates any recognizable individual light distribution light pattern that originates from a respective LED or other light source. As stated above, the profiled waveguide preferentially scatters light along its length but ultimately allows light to exit through its lateral surfaces. Such a waveguide provides a visible elongated or oval-like light pattern for each LED, brightest at the center and diminishing continuously out from the center along the major and minor axis of the pattern. By spacing the LEDs a certain distance apart and each LED an appropriate distance from the exposed and lateral far side of the leaky waveguide, the light intensity distribution patterns on the surface of far side of the leaky waveguide are caused to overlap to such an extent that the variations in the patterns are evened out. This causes the collective light pattern on the lateral surface to appear to an observer to have an uniform intensity along the length of the waveguide. Other components of the illumination device of the present invention including, for example, the shape of the light sources may assist in establishing the required brightness and uniformity.
>
> Structurally, the preferred embodiment of the present invention is portrayed in FIGS. 1-6 and shown generally as character numeral 10. The device 10 may be considered as having two major body components. The first component is a waveguide 12 having an exposed curved lateral surface 13 serving as the light emitting surface and a hidden lateral surface 15 (best seen in FIG. 3) that serves as

> the light receiving surface. Waveguide 12 is the aforementioned leaky waveguide and surface 13 serves as the counterpart to the neon tube. That is, the light laterally entering the waveguide from a light source juxtaposed to the surface 15 is preferentially scattered so as to exit with a broad elongated light intensity distribution pattern out of surface 13. Visually, the waveguide 12, when not illuminated internally, has a milky appearance due to the uniform scattering of ambient light that enters the waveguide and that ultimately exits the lateral surface thereof.

TRIAL EX. 1 at column 3, line 66 - column 5, line 4. Claim 8 of Patent No. 6,592,238, determined by the Federal Circuit as representative of all claims at issue, recites as follows:

> 8. An illumination device for simulating neon lighting, comprising:
>
> a substantially rod-like member having a predetermined length with a lateral light receiving surface and a lateral curved light emitting surface having a predetermined circumferential width, said member being comprised of a material that has both optical waveguide and light scattering properties t[h]at preferentially scatters light entering said light receiving surface into an elongated light intensity pattern on said light emitting surface with a major axis extending along said predetermined length;
>
> an elongated light source extending along and positioned adjacent said light receiving surface and spaced from said light emitting surface a sufficient distance to allow said light intensity pattern on said emitting surface to have a minor axis extending substantially the entire circumferential width of said light emitting surface;
>
> a housing in which said light source is positioned, said housing extending along said light receiving surface and having a pair of side walls, each with an interior light reflecting surface and an exterior light absorbing surface; and
>
> an electric connecting member positioned within said housing and adapted to connect said light source to a remote power source.

iLight Techs., Inc. v. Fallon Luminous Prods. Corp., 375 F. App'x at 23; TRIAL EX. 1 at column 10, lines 42-67. The Abstracts of the Plaintiff's second patent – Patent No. 6,953,262 – issued on October 11, 2005, and its third patent – Patent No. 7,188,970 – issued on March 13, 2007, are nearly identical to that of Patent No. 6,592,238, and contain the same claim 8. TRIAL EX. 2; TRIAL EX. 3. All three patents are continuations from the Provisional Patent Application, No. 60265522, filed on

January 31, 2001, *see iLight Techs., Inc. v. Fallon Luminous Prods. Corp*., 375 F. App'x at 23; TRIAL EX. 14, and incorporate therein revisions and amendments made by the applicants in response to rejections by the U.S. Patent Office to certain claims that were anticipated by prior art in previously filed patents.[3] *See* TRIAL EX. 15 - TRIAL EX. 17.

One such prior art previously patented and expressly not included within the Plaintiff's patents is found in Patent No. 6,361,186 granted to James C. Slayden on March 26, 2002 (Slayden Patent). TRIAL EX. 12. The Summary of the Invention for the Slayden Patent reads, in material part, as follows:

> In accordance with the invention, a neon light is simulated using light emitting diodes as a light source. An elongated, translucent diffuser of circular cross-sections is mated with an elongated opaque tubular housing of constant cross-section with a lengthwise slot. The diffuser is held in longitudinally aligned abutment against the edges of the housing slot to form a chamber between the housing and the diffuser from which light may only be emitted through the diffuser.
>
> A plurality of light emitting diodes is aligned in a linear array in the chamber. The plurality of diodes is connected to an electrical power source for energizing the diodes. The light emitted from the diodes can only pass from the chamber into the wall of the diffuser along the slot and out of the wall of the diffuser outside of the housing. The refraction and reflection of light by the tubular diffuser produces a neon-like glow or glare with an appearance of substantially homogeneous light intensity across the exposed surface of the diffuser. The housing has a maximum width taken in a direction parallel to a plane traversing the slot which is not greater than the diameter of the diffuser, so that the housing is hidden behind the diffuser. The diffuser is preferably made of polyethylene, but any material having an index of refraction in a range of that of polyethylene can be used.
>
> In an alternative embodiment, the diffuser has a length-wise slot contiguous with the housing slot, so that the light from the diodes is refracted and reflected over more than a 180 degree arc of the diffuser. However, the diodes do not physically penetrate within the circumference of the diffuser.

[3] The applicants were the inventors, Mark Joseph Cleaver, Eric Olav Eriksson, and George R. Huise.

. . . .

> This light emitting diode simulation of a neon light affords all of the advantages of LED lighting. It provides a durable, low voltage, low energy, non-gaseous, inexpensive, easy to install, easy to maintain, chromatically versatile, long life fixture which looks like a neon light and demands the attention of the observer.

TRIAL EX. 12 at column 1, line 39 - column 2, line 36. The Slayden Patent includes the following figures illustrating the invention:[4]

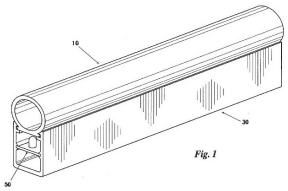


Fig. 1

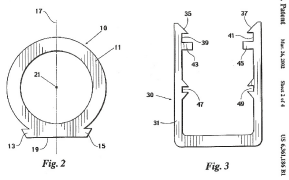


Fig. 2 Fig. 3

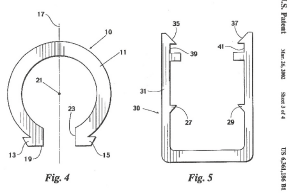


Fig. 4 Fig. 5

[4] These images may be viewed with greater clarity on Sheets 1, 2, and 3 of 4 appended to the Slayden Patent. *See* TRIAL EX. 12.

The waveguide is referenced in the above illustrations as number 10, an elongated translucent diffuser, and is described in the Detailed Description section of the Slayden Patent with respect to Fig. 1 and Fig. 4 as follows:

> A first embodiment of the diffuser 10 is illustrated in FIG. 1. The diffuser 10 consists of a tube 11 having a circular cross section. A pair of flanges 13 and 15 are symmetrically oppositely displaced in relation to a diameter 17 of the tube 11 and extend outwardly from the outer wall of the tube 11 parallel to a plane 19 perpendicular to the diameter 17. Preferably, the flanges 13 and 15, taken together, define a planar surface 19 which is tangent to the outer wall of the tube 11. The flanges 13 and 15 extend lengthwise on the diffuser. Preferably, the diffuser is made of polyethylene and most preferably of a milky clear polyethylene, though other materials having an index of refraction approximately equal to that of polyethylene may also be used. . . . .
>
> . . . .
>
> Looking at FIG. 4, an alternate embodiment of the diffuser 10 is illustrated which is in all respects the same as the diffuser 10 illustrated in FIG. 2 except that the circular tube 11 is provided with a lengthwise slot 23 through the tube 11 and the flanges 13 and 15. The slot is symmetrically disposed in relation to the diameter 17 which is perpendicular to the plane 19 of the flanges 13 and 15.

TRIAL EX. 12 at column 3, lines 1-13; lines 55-61. As is evident in the Detailed Description section, the diffuser included within the Slayden Patent consists of a "tube having a circular cross section[,]" TRIAL EX. 12 at column 3, lines 2-3, and although the word "hollow" is not found within the Slayden Patent, that word choice as well as the illustrative figures attached make it evident that the Slayden Patent includes as a diffuser a hollow cylinder, whether forming an enclosed full circle, such as in Fig. 1 and Fig. 2, or whether the cylinder contains a slot, such as in Fig. 4. *See* TRIAL EX. 12.

In his testimony, Mr. Cleaver explained how the Slayden Patent differs from the Plaintiff's in that it incorporates hollow tube waveguides while the Plaintiff's uses only solid waveguides, although the prosecution history of the patent, beginning with the initial Provisional Patent

Application dated January 31, 2001, evidences that the Plaintiff originally sought to patent claims anticipated by the Slayden Patent. *See* COLL. TRIAL EX. 17. As set forth in the Office Action Summary dated October 22, 2002, the U.S. Patent Office determined, *inter alia*, the following:

> Claims 1-4, 14 and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Slayden. Slayden discloses an illumination device for simulating neon lighting comprising a substantially rod-like waveguide 10 having a predetermined length with a lateral light receiving surface and a lateral curved light emitting surface having a predetermined circumferential width, said waveguide being comprised of a material that preferentially scatters light entering said light receiving surface such that a light intensity pattern exiting said light emitting surface has a major axis extending along said predetermined length and an elongated light source (51, 53, 55) extending along and positioned adjacent said light receiving surface and spaced from said light emitting surface a distance sufficient to cause said light intensity pattern to have a minor axis with a length extending substantially the entire circumferential width of said light emitting surface.

TRIAL EX. 15 at 3. In response to the October 22, 2002 Office Action Summary, the applicants submitted an Amendment Pursuant to 37 CFR § 1.111 dated December 23, 2002, containing the following Remarks with respect to the rejection of claims based upon the Slayden Patent:

> In the initial Office Action, the Examiner rejected claims 1-4, 14, and 16-21 of the pending patent application as being anticipated by U.S. Patent No. 6,361,186 issued to Slayden . . .[.] However, the '186 Patent describes the use of a hollow, thin-walled, translucent diffuser that provides no preferential scattering of light, a critical feature of the illumination device described and claimed in the present application.
> . . . .
>
> As the above discussion points out, to achieve the desired light intensity and uniformity, the rod must preferentially direct light along its length while also urging the light out of a lateral surface. This requires an essentially solid rod with optical waveguide and light scattering characteristics. Neither cited prior art reference teaches or suggests the use of an essentially solid rod, nor does either reference teach or suggest the use of a rod with optical waveguide and light scattering characteristics.
>
> Therefore, for the reasons stated above, Applicants respectfully submit that none of the claims of the present application, as amended, are anticipated or obvious in view of U.S. Patent No. 6,361,186 . . .[.]

TRIAL EX. 16 at 13. Accordingly, as far as their waveguide is concerned, "the patent applicants unequivocally disclaimed hollow structure" or, to phrase it another way, "applicants disclaimed non-essentially solid structure." *iLight Techs., Inc. v. Fallon Luminous Prods. Corp*., 375 F. App'x at 27. In clarification of his own definitions of hollow versus solid that he requested the court adopt as well, Mr. Cleaver stated that a hollow waveguide requires two refractions of light, but if all or a majority of light passes through a plastic medium once, it is solid. He testified that he arrived at this definition by way of the Slayden Patent, focusing upon the following language therein:

> Since the housing 30 is opaque, light can only be emitted by the diodes 51, 53 and 55 through the diffuser 10. Since the diodes 51, 53 and 55 are external to the outer diameter of the diffuser 10, refracted light can be emitted from the fixture only after being twice refracted by the diffuser 10. In addition, the inner and outer walls of the diffuser 10 provide reflective light throughout the cross-section of the tube 11. It is believed that this combination of reflected and refracted light in the translucent tube is what affords the neon-like glow of the fixture.

TRIAL EX. 12 at column 4, lines 43-53. Additionally, to assist the court in its analysis of the narrow issue, the parties introduced into evidence a number of diagrams as well as actual product which were, in turn, further explained by the expert witnesses, Dr. Roberts on behalf of the Plaintiff and Mr. Hathaway on behalf of the Defendant.

In conducting his examination of the accused products, Dr. Roberts received a sample of the Defendant's "open" sign which he physically examined, photographed, and measured for light uniformity before dissecting it and studying the components, subsequently coming to the conclusion that the waveguide used by the Defendant is solid. *See* TRIAL EX. 9; TRIAL EX. 10. In both his report and in his trial testimony, Dr. Roberts explained that his opinion that a hollow waveguide is one in which a predominate amount of the light is refracted twice and a solid waveguide is one in which

there is no air space between the light receiving surface and the light emitting surface so that light is refracted only once is based upon statements contained in the Slayden Patent. According to Dr. Roberts:

> Slayden teaches away from the solution set forth in the Patents-In-Suit by claiming that a tubular waveguide is necessary to achieve the desired "neon-like *glow*." For example, in Col. 4:45-53 Slayden states: ". . . *refracted light can be emitted from the fixture only after being twice refracted by the diffuser 10. In addition, the inner and outer walls of the diffuser 10 provide reflective light throughout the cross-section of the tube 11. It is believed that this combination of reflected and refracted light in the translucent tube is what affords the neon-like glow of the fixture."* (emphasis added). As explained in the specification of Slayden, light entering the diffuser 10 through a light receiving surface is refracted twice, through two plastic mediums, by the diffuser 10 before exiting a light emitting surface of the diffuser 10, and the walls of the diffuser 10 provide multiple reflections of light in air throughout the cross-section of the diffuser tube 11.
>
> In distinction, the waveguide of the invention claimed in the iLight patents is solid and does not have a "hollow" area between the light receiving surface and the light emitting surface. Lacking such a "hollow" structure, the waveguide disclosed in the iLight patents does not permit multiple internal light reflections in air or refractions through multiple plastic mediums as disclosed for the diffuser 10 of Slayden or for the alternative hollow waveguides described above, as depicted below in Figure BK7.

TRIAL EX. 11 at ¶¶ 17-18 (emphasis and italics in original); *see also* TRIAL EX. 12, at column 4, lines 47-53.

In his report, Dr. Roberts acknowledged that the Slayden Patent encompasses the alternate, slotted embodiment, shown above as Fig. 4:

> The specification of Slayden explains that the alternate embodiment depicted in FIG. 4 "*is in all respects the same as the diffuser 10 illustrated in FIG. 2 [the first embodiment] except that the circular tube 11 is provided with a lengthwise slot 23 through the tube 11 and the flanges 13 and 15.*" Col. 3:55-59.
>
> The specification of Slayden further explains that the alternate embodiment depicted in FIG. 4 does not function as well as the first embodiment depicted in FIG. 2 because of the lengthwise slot 23. *"In the slotted embodiment of the diffuser 10*

> *illustrated in FIG. 4, the slot 23 is aligned contiguously with the slot 33 in the housing 30. This may somewhat reduce the quality of neon simulation, but does facilitate assembly and maintenance since the diffuser 10 is thus compressible to assist in engagement with the channels 39 and 41 of the housing 30."* Col. 4: 53-59 (emphasis added).

TRIAL EX. 11 at ¶¶ 20-21 (emphasis and italics in original); *see also* TRIAL EX. 12. During his testimony, Dr. Roberts elaborated, stating that the shape of the waveguide was not determinative; the test defined by Slayden concerned only the single refraction of light and the lack of air space between the light receiving and light emitting surfaces.

To further support his opinion, Dr. Roberts attached photographs, drawings, and diagrams to his report. The first attachment includes a photograph of the end view of the cut waveguide removed from the sample "open" sign and studied by Dr. Roberts which was marked as Trial Ex. 10, alongside a dimension drawing by Dr. Roberts of the sign, showing the LED placement at the bottom, the circuit board holding the LED, the side walls of the housing, and the waveguide at the top. *See* TRIAL EX. 11a. Dr. Roberts testified that the purpose of this drawing and photograph was to show that the Defendant's waveguide has a single light receiving surface, where the light from the LED enters then exits through a single light emitting surface. Similarly, the second attachment to his report is an expanded view of the drawing in Trial Exhibit 11a, wherein Dr. Roberts took the top of the figure containing the waveguide, which he highlighted in yellow and magnified in order to show light refraction by adding into the drawing a single beam of light from the LED bouncing off the side wall before entering the light receiving surface where it refracts before leaving through the light emitting surface. *See* TRIAL EX. 11b. Dr. Roberts testified that Trial Exhibit 11b shows

the nature of the waveguide is solid in structure because the light refracts only once within the plastic medium, and there is no air space between the light receiving surface and the light emitting surface.

The third attachment to Dr. Roberts's report consists of Fig. 1 and Fig. 3 from the Plaintiff's patents, depicting an oblique view of the Plaintiff's system, showing the housing 14 at the bottom and the waveguide 12 at the top, and the inside view of Figure 1, showing the LED, the housing, the walls, and the waveguide from a parallel cross-sectional end view, respectively. *See* TRIAL EX. 11c. Dr. Roberts testified that this cross-section shows the light receiving surface and the light emitting surface with no hollow space between the two, evidencing a solid structure. When asked to compare the similarities between the Plaintiff's waveguide depicted in Trial Exhibit 11c and the Defendant's waveguide depicted in Trial Exhibit 11b, Dr. Roberts testified that the Defendant's waveguide clearly has a different shape than the Plaintiff's and that the light receiving surface is curved rather than flat, but neither changes the fact that the Defendant's waveguide is a solid piece of material with a single light receiving surface and a single light emitting surface, irrespective of shape. Likewise, the fourth attachment to his report is the magnified and highlighted end view of the cross-section drawing of the Plaintiff's waveguide shown on Trial Exhibit 11c, concerning which Dr. Roberts testified shows a single ray of light entering the light receiving surface, refracting once, and exiting through the light emitting surface, just as Trial Exhibit 11b did for the Defendant's waveguide. *See* TRIAL EX. 11d. These examples were distinguished from the fifth attachment, labeled "Hollow Waveguide Alternatives Fallon Did Not Use," consisting of drawings by Dr. Roberts which depicted two hypothetical hollow structured waveguides the Defendant could have but did not use which show through the expanded highlighted waveguide sections the air space between the first light

receiving/light emitting surfaces and the second, wherein the single light ray shown refracts more than once before exiting the second light emitting surface of the waveguide. *See* TRIAL EX. 11e.

To further emphasize the differences between the waveguides, Dr. Roberts included as the sixth attachment to his report Trial Exhibit 11f which, similar to Trial Exhibit 11c, depicted as Fig. 1 an oblique view of Slayden's "preferred embodiment" of his device, showing the tubular waveguide mounted atop the housing, together with the inside view of the waveguide from the parallel cross-sectional end view denoted as Fig. 2. *See* TRIAL EX. 11f. At trial, Dr. Roberts testified that Fig. 2 clearly portrays the Slayden requirement that the light be twice refracted through the waveguide, additionally referring to the next attachment to his report which depicts three examples of multiple refractions and internal reflections within a hollow area using the Slayden Fig. 2 preferred closed tube and the two hypothetical hollow waveguides shown on Trial Exhibit 11e. *See* TRIAL EX. 11g. Finally, the eighth attachment to Dr. Roberts's report depicts what he referred to as the Slayden "non-preferred embodiment," designated in the Slayden Patent as Fig. 4,[5] showing the slotted tube that Dr. Roberts pointed out gives the same reference number 10 to both the preferred Fig. 2 and non-preferred Slayden Fig. 4 waveguides in the Slayden Patent, which also states that these waveguides were in all respects the same except for the slot. *See* TRIAL EX. 11h.

On cross-examination, Dr. Roberts acknowledged that the Slayden Patent shows two embodiments: the Slayden Fig. 2 tube and the Slayden Fig. 4 slotted tube, agreeing that both are hollow waveguides. He also testified that the drawings in the Slayden Patent are not dimensionally

[5] The court will hereinafter refer to the Slayden alternate or slotted embodiment designated in the Slayden Patent as Fig. 4 as "Slayden Fig. 4."

accurate depictions because the ratios of the inner and outer diameters in Slayden Fig. 2 and Slayden Fig. 4 do not match the ratios expressly set forth in the Slayden Patent, so there is no reason to therefore assume that the slot drawn in Slayden Fig. 4 is dimensionally correct either, and without proper dimensions, he cannot state whether or not the Defendant could use the Slayden Fig. 4 embodiment without infringing. He expressly reiterated, several times, that he did not agree with the dimensions or size of the slot drawn for Slayden Fig. 4 and that Slayden did not specify the size of the slot, although Dr. Roberts assumed the slot was small. Dr. Roberts also acknowledged that the purported refraction through a single plastic medium reflected in Trial Exhibit 11d represented a rare event since the medium used for the diffuser was intended to scatter light rays, in that the waveguide used by the Plaintiff in fact scatters most of the light rays passing through it as opposed to each ray making a single refraction as shown on the drawing, explaining that he used the diagram to demonstrate the concept of singular refraction. *See* TRIAL EX. 11d.

Dr. Roberts was additionally questioned, with respect to Slayden Fig. 4, whether any light would penetrate the slot and not refract twice, as is required by his test for hollow versus solid. He testified that he created a model based on Slayden Fig. 4 for the jury trial in the District Court for the Middle District, with the slot representing 8% of the tube's total circumference. He acknowledged that some – but not all – of the light went through the slot and refracted only once, reiterating, however, that his model was an approximation only and because the "predominate amount" of light was twice refracted, the waveguide was hollow. Maintaining that it was a purely hypothetical assumption that he disagreed with, Dr. Roberts testified that if the test was whether the structure had a shape with an interior air space, none of the Defendant's products would infringe

because the waveguides contain an air space within the cavity defined by its shape. He also agreed that, under that spacial definition, any waveguide with any sort of curvature would have an air space and be hollow.

The Defendant's expert, Mr. Hathaway, testified that he believes the better test to be a geometric test: if the structure contains air in the middle, it is hollow, and if the structure does not have air within its volume, it is solid. For his analysis, Mr. Hathaway also physically examined dissected sections of the Defendant's signs in addition to performing a series of tests. He testified that he found there to be a large air gap between the diffusing surfaces of the Defendant's waveguide, determined the air volume is an important part of the waveguide's structure, without which the light would have behaved differently, and, based on these factors, came to the conclusion that the Defendant's waveguides are hollow. Mr. Hathaway testified that one test was used simply to note that the material portion of the waveguide formed an arch, had side walls, and a top surface, that each part of the waveguide was receiving and encountering light, and that light was being directed from those surfaces across the air gap between them, causing optical light transmissions between the various portions of the waveguide through the air in the center, with the diffuser around the outside.

He also performed optical modeling tests to look for behavioral similarities between the parties' and Slayden's waveguides, explaining that he took that approach since it had been agreed that the Slayden structures were hollow. Utilizing a simplified dimensional analysis to compare the Defendant's waveguide and Slayden Fig. 4, Mr. Hathaway noted that if a line were drawn from the top of each waveguide to the bottom, the line passed through an air gap, and if a line were drawn horizontally through each, the line likewise passed through a central air space. *See* TRIAL EX. 24.

To better illustrate this point at trial, Mr. Hathaway relied on Trial Exhibit 27 to demonstrate how a ray of light launched from its source travels vertically through the air gap before encountering the top surface in both waveguides. *See* TRIAL EX. 27. Based upon these geometrical similarities and using the knowledge that Slayden Fig. 4 is hollow, Mr. Hathaway defined a hollow waveguide as a material wrapped around an arching empty volume and concluded that the Defendant's structure was hollow. He distinguished the Defendant's waveguide from the Plaintiff's by the same test, using as exemplars the foregoing as well as Trial Exhibits 19, 22, and 26, and stating that solid material, not air, is encountered if a vertical line is drawn from the top to the bottom or from side to side of the waveguide.

As an additional part of his analysis, Mr. Hathaway performed computer modeling using the OptiCAD program to come up with an objective way to determine if the structures were hollow or solid. In doing so, he performed a ray tracing analysis to further compare the Defendant's waveguide with that of the Plaintiff and Slayden Fig. 4, testifying that the similar reactions of the Defendant's waveguide with Slayden Fig. 4 to light "in the real world" further support his conclusion that the Defendant's waveguide, like Slayden's, is hollow. *See* TRIAL EX. 28; TRIAL EX. 29. In performing these tests, Mr. Hathaway testified that he first utilized a more realistic material property of the diffusive nature of each waveguide to incorporate the diffusion volume into each model then placed a light source in the approximate position where the LED was housed in each device before launching a fan of rays at both products, which he traced through the products to find that they evidenced the same type of behavior. He explained that Trial Exhibit 28 illustrates light traveling into the diffusive area of the waveguide and encountering the first surface, after which it is scattered

within the plastic material where it is redirected and split into multiple sub-rays, many of which bounce around from one surface to another within the waveguide structure, which would, in fact, cause multiple refractions. TRIAL EX. 28. Mr. Hathaway also stated that another aspect illustrated by this test is that the rays traveling through the air in the "inner volume" always travel in a straight line because they are not being diverted by a plastic material which would cause further scattering throughout the entire volume. *See* TRIAL EX. 28.

Mr. Hathaway acknowledged that if the court adopts the test offered by the Plaintiff – that a waveguide is hollow if it causes light to be twice refracted – the Defendant's accused products would infringe. He disagreed, however, with Dr. Roberts's use of this refraction test to determine whether the waveguide structure was hollow, stating that the test itself is defective and creates confusion because it cannot be applied uniformly to structures known to be hollow, such as Slayden Fig. 4. To help illustrate the lack of reliability in using Dr. Roberts's test to determine if a structure is hollow, Mr. Hathaway performed the same basic ray tracing analysis shown in Trial Exhibit 28 with a reduced diffusivity in the Slayden Fig. 4 model. *See* TRIAL EX. 29. He testified that since the amount of diffusion is an engineering issue controlled by a device's designer, he included this test to point out how the internal refractive nature can be altered by changing the property of the material used. Mr. Hathaway additionally testified that, irrespective of the OptiCAD test results, which he argued further supported his conclusion, the instruction to the court was to determine whether the structure of the Defendant's waveguide is hollow or solid, requiring, in his opinion, a geometrical determination without any analysis of the optical behavior of the waveguides.[6]

[6] On cross-examination, the Plaintiff's counsel asked Mr. Hathaway whether all arched structures would be (continued...)

In its decision, the Federal Circuit held that "[t]he jury should have been instructed that the claimed invention did not include 'hollow' structure for the waveguide and that, in order to infringe, structure in the accused Fallon products corresponding to the waveguide could not be 'hollow.' We think that Fallon's proposed claim construction, augmented by appropriate instruction to the jury with respect to the 'solid' requirement, would have accomplished this." *iLight Techs., Inc. v. Fallon Luminous Prods. Corp*., 375 F. App'x at 27. Taking this directive together with the Defendant's proposed claim construction, the Federal Circuit essentially ratified the term "rod or rod-like" as meaning "[a] structure that is both solid and shaped like a rod, as opposed to a hollow tube or hollow arch." *iLight Techs., Inc. v. Fallon Luminous Prods. Corp*., 375 F. App'x at 25. After careful review of the exhibits in correlation with the testimony of both experts, this court agrees that the geometrical determination better fulfills the directives of the Federal Circuit and is the proper test to determine whether the Defendant's waveguide is hollow. Based upon that test, the court finds that the Defendant's waveguide is hollow and is specifically excluded from the solid "rod or rod-like" invention contemplated under the Plaintiff's patents. The accused products do not, therefore, infringe on the Plaintiff's patents.

"[U]nless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning." *Perrin v. United States*, 100 S. Ct. 311, 314 (1979). In order to derive the true

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[6](...continued)
considered hollow or if there was an arch thick enough to be considered solid. Mr. Hathaway replied that it would depend on the ratio of the entire unit to the ratio of the air space, surmising when asked for a figure that perhaps a volume in excess of 30% would constitute "substantial," but acknowledging that there was no definitive number for making that determination. The court recognizes, as did Mr. Hathaway, that he "invented" that percentage in the course of his cross-examination; however, the Plaintiff's hypothetical is irrelevant to whether or not the Defendant's accused waveguide is hollow or solid.

intent of the Federal Circuit, it is important to note the common meaning of the following essential terms contained in its finding. The term "hollow" is defined as "1. having a space or cavity inside; not solid; empty[.]" DICTIONARY.COM UNABRIDGED, http://dictionary.reference.com/browse/hollow (based on RANDOM HOUSE DICTIONARY); *see also* WEBSTER'S NEW COLLEGIATE DICTIONARY 541 (1979) ("1: having an . . . inward curve... 2: having a cavity within."). The term "structure" is defined as "2. something built or constructed, as a building, bridge, or dam ... 4. anything composed of parts arranged together in some way; an organization." DICTIONARY.COM UNABRIDGED, http://dictionary.reference.com/browse/structure (based on RANDOM HOUSE DICTIONARY); *see also* WEBSTER'S NEW COLLEGIATE DICTIONARY 1146 ("...4 a: the arrangement of particles or parts in a substance or body ... 5 a: the aggregate of elements of an entity in their relationships to each other[.]"). The term "arch" is defined as "1. ... c. a doorway, gateway, etc., having a curved head; an archway. d. the curved head of an opening, as a doorway. 2. any overhead curvature resembling an arch." DICTIONARY.COM UNABRIDGED, http://dictionary.reference.com/browse/arch (based on RANDOM HOUSE DICTIONARY); *see also* WEBSTER'S NEW COLLEGIATE DICTIONARY 58 ("2 a: something resembling an arch in form or function ...; 3: archway."). Finally, the term "solid" is defined as "1. having three dimensions (length, breadth, and thickness), as a geometrical body or figure. ... 3. having the interior completely filled up, free from cavities, or not hollow: *a solid piece of chocolate*." DICTIONARY.COM UNABRIDGED, http://dictionary.reference.com/browse/solid (based on RANDOM HOUSE DICTIONARY); *see also* WEBSTER'S NEW COLLEGIATE DICTIONARY 1098 ("1 a: being without an internal cavity[.]").

Incorporating these definitions into the Federal Circuit's decision yields a finding that the Defendant's accused products contain a waveguide with a curved head forming an archway that, as

part of its whole, incorporates a space or cavity, as opposed to having a filled, three-dimensional interior, and therefore, it is hollow and does not infringe. The court believes that this interpretation of the Federal Circuit's holding fully supports the Defendant's argument that the test for determining whether its waveguide infringes is a geometric one.

A physical example of the Defendant's waveguide was entered into evidence as Trial Exhibit 10, and it is evident from this exhibit as well as from both experts' testimony that it consists of a thin but solid piece of plastic material with a curved top and side edges that fit into the side walls of the housing of the illumination device. *See* TRIAL EX. 10; *see also* TRIAL EX. 11a. Once the edge walls of the waveguide are fitted into the side walls of the housing of the device, the waveguide forms a curved arch over the structure holding the LED that contains no additional plastic or porous material and is simply an open air space below the top of the waveguide and between its side edges, and if one were to draw an invisible horizontal line across the bottom of the waveguide's side edges would create a cavity filled entirely of air. *See, e.g.,* TRIAL EX. 10; TRIAL EX. 11a; TRIAL EX. 21; TRIAL EX. 26. The waveguide is not merely made up of the top, curved portion, but also the side edges, and as such, the internal air space between those side edges cannot be discounted and must be considered part of the overall structure of the waveguide. Additionally, Mr. Hathaway testified that this open air volume is actually an important component of the waveguide itself because it provides propagation for the light rays that are re-emitting from the diffusive surface which facilitates the spreading of the light rays through the device, and the light would behave differently without the air space. This assessment also comports with Dr. Roberts's testimony that the interior of the solid waveguide provided for in the Plaintiff's patents is essential to its effectiveness.

The test used by Dr. Roberts has a flaw that cannot be overcome with respect to the alternate embodiment of Slayden Patent Fig. 4: regardless of the mounting and the degree of compression, because the tube is slotted, some light will pass through the air space and hit only one plastic medium. When questioned about the flaw in this reasoning at trial, Dr. Roberts testified that his test, which he reiterated numerous times was based on the Slayden Patent, could not be applied rigidly to Slayden Fig. 4 and, with respect to that embodiment, had to be modified to provide for requiring that a "preponderance" or "most" of the light was twice refracted. This modification, however, is not included within his report nor is it found anywhere within either the Slayden Patent or the Plaintiff's patents. Furthermore, the court reads the Slayden Patent as requiring not simply that light be twice refracted through a hollow diffuser but also requiring that the light be reflected within the interior of the diffuser, a factor that Dr. Roberts's test does not address but one which is clearly present in the Defendant's waveguide.

The passage from the Slayden Patent relied upon heavily by the Plaintiff and Dr. Roberts is found in column 4 at lines 45 through 53. The entire paragraph for that section, however, begins at line 40 and continues to line 67, and reads as follows:

> As is best seen in FIG. 6, the diffuser 10 is held in longitudinally aligned abutment against the edges 35 and 37 of the slot 33 in the housing 30 to form a chamber 61 between the housing 30 and the diffuser 10. Since the housing 30 is opaque, light can only be emitted by the diodes 51, 53 and 55 through the diffuser 10. *Since the diodes 51, 53 and 55 are external to the outer diameter of the diffuser 10, refracted light can be emitted from the fixture only after being twice refracted by the diffuser 10.* ***In addition, the inner and outer walls of the diffuser 10 provide reflective light throughout the cross-section of the tube 11. It is believed that this combination of reflected and refracted light in the translucent tube is what affords the neon-like glow of the fixture***. In the slotted embodiment of the diffuser 10 illustrated in FIG. 4, the slot 23 is aligned contiguously with the slot 33 in the housing 30. This may

> somewhat reduce the quality of neon simulation, but does facilitate assembly and maintenance since the diffuser 10 is thus compressible to assist in engagement with the channels 39 and 41 of the housing 30. The reduced quality of neon simulation, if any, appears as variations in intensity of light on the exposed diffuser surface due to the use of multiple point sources of light. This potential loss of quality can be minimized by use of wider angle dispersion light emitting diodes. *The wider angle of dispersion not only directly reduces the focused intensity of the point sources but also* ***adds to the refractive and reflective qualities of the diffuser 10.***

TRIAL EX. 12 at column 4, lines 40-67 (emphasis and italics added). The reflective quality of the diffuser is mentioned not once but three times in this paragraph, and Slayden expressly states that the neon-like glow is accomplished by a combination of the refractive and reflective elements of the diffuser.

> As previously noted, Dr. Roberts makes the following statements in his report:
>
> Slayden teaches away from the solution set forth in the Patents-In-Suit by claiming that a tubular waveguide is necessary to achieve the desired "neon-like *glow*." For example, in Col. 4:45-53 Slayden states: "*. . . refracted light can be emitted from the fixture only after being twice refracted by the diffuser 10. In addition, the inner and outer walls of the diffuser 10 provide reflective light throughout the cross-section of the tube 11. It is believed that this combination of reflected and refracted light in the translucent tube is what affords the neon-like glow of the fixture."* (emphasis added). As explained in the specification of Slayden, light entering the diffuser 10 through a light receiving surface is refracted twice, through two plastic mediums, by the diffuser 10 before exiting a light emitting surface of the diffuser 10, and the walls of the diffuser 10 provide multiple reflections of light in air throughout the cross-section of the diffuser tube 11.
>
> In distinction, the waveguide of the invention claimed in the iLight patents is solid and does not have a "hollow" area between the light receiving surface and the light emitting surface. Lacking such a "hollow" structure, the waveguide disclosed in the iLight patents does not permit multiple internal light reflections in air or refractions through multiple plastic mediums as disclosed for the diffuser 10 of Slayden or for the alternative hollow waveguides described above, as depicted below in Figure BK7.

TRIAL EX. 11 at ¶¶ 17-18 (italics and emphasis in original). Although these paragraphs briefly mention that the Slayden Patent also contains a reflective quality requirement, Dr. Roberts's analysis

– and his testimony at trial – were nevertheless focused almost exclusively upon the "twice refracted" requirement, wherein he determined that the Defendant's waveguide is solid because it does not have two separate light receiving and light emitting surfaces, and basically ignored the requirement that light be reflected off the surfaces of the diffuser through air.

Accepting that the Slayden Patent defines the term "hollow" for purposes of the Plaintiff's patents, a fact both argued and acknowledged by the Plaintiff, an analysis of the Defendant's waveguide with respect to both its refractive and reflective qualities likewise leads the court to find that the geometric test proposed by the Defendant better fits the test set forth in the Slayden Patent. As shown in Trial Exhibits 28 and 29, the OptiCAD tests performed by Mr. Hathaway clearly evidence that a great number of light rays from the base of the Defendant's device are not simply refracted through the waveguide but are also reflected within the open air space between its side edges. And when compared side to side with the refractive and reflective qualities of Slayden Fig. 4 using the same diffusivity, there is little difference in the behavior of the light rays, once again supporting the Defendant's argument and the court's determination that the waveguide is hollow.

In summary and in answer to the narrow issue to be decided, the court finds that the waveguides in the accused Fallon Luminous Products Corporation products have a "hollow" structure, and because the structure is "hollow," the accused products do not infringe iLight Technologies, Inc.'s patents. The Complaint filed by the Plaintiff on March 24, 2006, as amended by the Amended Complaint filed on March 19, 2007, will be dismissed, and the Chapter 11 Trustee's Objection to iLight Claim will be sustained.

A Judgment consistent with this Memorandum will be entered.

FILED: February 3, 2011

BY THE COURT

/s/ RICHARD STAIR, JR.

RICHARD STAIR, JR.
UNITED STATES BANKRUPTCY JUDGE